

Applicants: Jay M. Short  
Application No.: 09/738,871  
Filed: December 14, 2000  
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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Upon entry of the present amendment, the claims will stand as follows:

Please amend claim 65 as follows:

Claims 1-64 (Cancelled)

65. (Currently Amended) A method for obtaining an organism from a mixed population of organisms in a sample comprising:

- (a) encapsulating two or more organisms obtained from the sample, each in a microenvironment at least one organism from the sample suitable for growth of the organisms;
- (b) incubating the encapsulated ~~at least one organism~~ two or more organisms under such conditions and for such a time to allow the ~~at least one microorganism~~ two or more organisms to grow [[or proliferate]]; and
- (c) sorting the ~~encapsulated at least one microorganism~~ microenvironments by a flow cytometer on the basis of growth of the organism to obtain an organism from the sample that grows under the conditions.

66. (Original) The method of claim 65, wherein the mixed population of organisms is from an environmental sample.

67. (Original) The method of claim 65, wherein the mixed population of organisms comprises microorganisms.

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68. (Original) The method of claim 66, wherein the environmental sample contains extremophiles.

69. (Original) The method of claim 68, wherein the extremophiles are selected from the group consisting of hyperthermophiles, psychrophiles, halophiles, psychrotrophs, alkalophiles, and acidophiles.

70. (Original) The method of claim 65, wherein the flow cytometer comprises a magnetic field sensing device.

71. (Original) The method of claim 70, wherein the magnetic field sensing device is a Super Conducting Quantum Interference Device.

Claim 72 (Cancelled)